

Management

and

uses

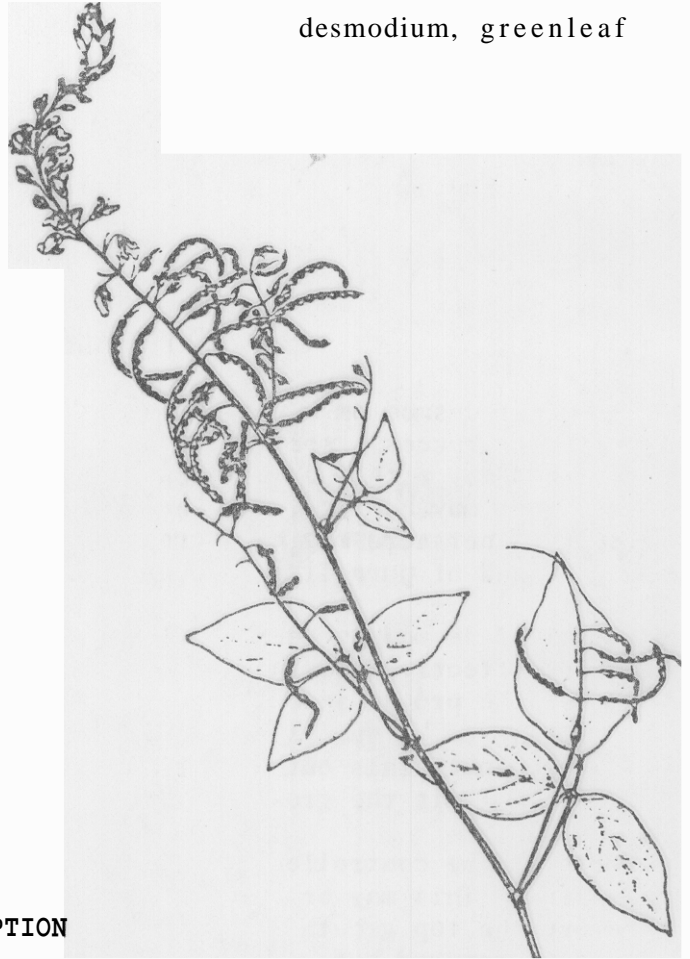
of

GREENLEAF DESMODIUM

Desmodium intortum

syn. aparines

desmodium, greenleaf



In Hawaii

DESCRIPTION

Greenleaf desmodium is a perennial plant with long, trailing stems that root at the nodes. The main stems are green to reddish brown, from 5 to 25 feet long and about 5/16 inch in diameter. The trifoliate leaves are ovate, 2 to 3 inches wide and 3 to 5 inches long when mature. The upper leaf surface is light to dark green or reddish brown and covered with fine hairs. The lower leaf surface may be lighter in color and is covered with fine hairs.

The inflorescence occurs as a raceme. The pea-type flowers are usually pink and are borne on the terminal part of the upright flower stem. The hairy seed pods are indented around the seed with the lower edge of the pod having the larger indentations. Flower initiation is regulated by a short photoperiod. Most of the flowers occur from November through March. The seeds are kidney-shaped, light brown or tan, about 2.0 mm long and 1.5 mm wide. There are from 152,000 to 385,000 seeds per pound.

ADAPTATIONS

Climate: Greenleaf desmodium is adapted to climatic areas with an annual rainfall of more than 60 inches, and at elevations from sea level to at least 2,500 feet.

Soils: Greenleaf desmodium is adapted to a wide range of soil conditions, including cuts and fills.

USES

Livestock: Greenleaf desmodium is recommended for **use** as a pasture legume. It adds to the forage quality by its protein content and increases production by providing nitrogen for companion grasses.

Erosion Control: Greenleaf desmodium provides a good protective cover where fertility is adequate.

ESTABLISHMENT

Greenleaf desmodium may be established from either seeds or stem cuttings. To insure success, seeds should be planted in a well-prepared seedbed. The seed may either be broadcast or drilled in rows. Any width of row up to 3 feet may be used. **As** the distance between rows increases, the seeding rate per acre may be decreased. The suggested broadcast seeding rate is 1 pound of pure live seed per acre.

Greenleaf desmodium seed must be inoculated with the proper rhizobium to insure effective nodulation. If the field is to be established from cuttings, the proper inoculum must be applied to the stems at the time of sprigging to be sure that nodulation will occur. Keep inoculum and treated planting materials out of direct sunlight. Improper nodule formation may severely limit the growth of this crop.

Weeds can be controlled in recently seeded pastures by controlled animal grazing. This may be done by stocking the pasture with enough animals to remove the top growth of all weedy plants in 7 days or less. The animals must be removed before the greenleaf desmodium seedlings are permanently damaged.

Adequate levels of available phosphorus, potassium, and calcium increase seedling vigor and promote rapid establishment of cuttings.

Greenleaf desmodium is generally grown with pangolagrass (Digitaria decumbens). It will grow well with paragrass (Brachiaria mutica) and kikuyugrass (Pennisetum clandestinum).

MANAGEMENT

The management of a greenleaf desmodium-grass mixture is governed by the growth of the legume, and rotational grazing must be carefully practiced. This legume must be given an opportunity to make enough top growth for good root development. Care must be taken to prevent excessive stem damage because the new growth comes from buds in the leaf axils on the stems as well as from the crowns. All livestock should be removed from the pasture as soon as possible after the leaves have been stripped from the stems. Greenleaf desmodium has a 60- to 90-day regrowth cycle.

Application of phosphate, based on a soil test, is necessary for good vigorous plant growth. A good stand may provide enough nitrogen for adequate grass growth so a nitrogenous fertilizer should not be used. A good, well-managed, greenleaf desmodium-grass pasture will produce 80 tons of green forage per acre per year.